

**STRESS LEVELS OF KUWAITI MOTHERS OF CHILDREN WITH SLD: DOES WORK AND EDUCATIONAL STATUS MATTER?****Saad S. Alazemi***Ministry of Education, Kuwait***Azar Hadadian****John B. Merbler***Ball State University***Cen Wang***Charles Stuart University*

*Existing research literature indicates that parents of children with disabilities have higher stress. The purpose of this study was to examine differences in stress levels between mothers in relation to their children with specific learning disabilities (SLD). A sub sample of 91 mothers participated in the study. The outcome of the research revealed that there were significant differences in stress levels of mothers of children with SLD as it related to employment and educational status. The findings of this study indicated that mothers with a higher education degree had lower stress levels. In contrast, employed mothers had higher stress levels as related to their children with SLD.*

Existing research indicates that parents of children with disabilities are under high stress levels. Similarly existing research literature has shown that parental stress increases when support services are not readily available, creating the need for the parent to search for appropriate services (Chichevska- Jovanova & Dimitrova -Radojichikj, 2012; Dyson, 1991; Dyson, 1996; Floyd & Gallagher, 1997; Lardieri, Blacher, & Swanson, 2000). Pattison (2005) reported that *a large proportion of individuals who have learning disabilities have co-existing mental health problems (known as dual diagnosis) and there are few services available to provide the required psychological support* (p. 121). Further, parents may experience anxiety related to the uncertainty about their child's future. Lack of external supports, such as the support of friends, family, schools, communities, and professional organizations, can be a contributing source of stress for parents of children with SLD (Arnold, Michael, Hosley, & Miller, 1994; Hassal, Rose, & McDonald, 2005; Wehman & Gilkerson, 1999).

Parents of children with SLD may also experience negative attitudes toward their child and low expectations for the academic achievement of their children. The inability of the child to meet academic requirements may contribute to the negative attitude of the parent, who can experience stress, frustration, and disappointment as a result of what they perceive as their child's academic inadequacies (Chapman & Boersma, 1979; Karande & Kulkarni, 2009; Klein, Altman, Dreizen, Friedman, & Power, 1981). In addition, children with SLD need additional assistance from their parents as well as special educational services to meet their needs (Bryan, Burstein, & Bryan, 2001; Hallahan, Kauffman, Weiss & Martinez, 2005). Helping children with SLD may result in the need for increased support from the parents, consuming their time and increasing parents' level of stress (Waggoner & Wilgosh, 1990).

Having a child with SLD often puts pressure on the family dynamic and can lead to physical and emotional exhaustion (Chang & Hsu, 2007; Faerstein, 1981; Kenny & McGilloway, 2007; Lardieri et al., 2000; Waggoner & Wilgosh, 1990). The negative impact of the experience of having a child with SLD can result in untenable relationships within the family, subsequently resulting in conflict that remains unresolved. Families of children with SLD may experience emotional, physical, and social stress (Chang & Hsu, 2007; Lardieri et al., 2000), which can result in heightened levels of marital issues and

even lead to failed marriages (Margalit & Heiman, 1988). Dysfunctional patterns of behavior among family members can manifest during normal life events, such as when the child with SLD begins school or moves away from home (Wilchesky & Reynolds, 1986). Expectations are placed on the parents to assist their child in transitioning to life beyond public school education (Brotherson, Berdine & Sartini, 1993; Wilgosh, 1990). Parents face difficult situations that require serious and permanent involvement as they help their child with SLD overcome their learning difficulties and achieve success in their academic and post academic careers (Brotherson, Berdine & Sartini, 1993; Wilgosh, 1990). This stress is pervasive, as the parent must gain knowledge and assist their child in making decisions about appropriate vocational training, community employment opportunities, and independent living options (Brotherson, Berdine & Sartini, 1993; Wilgosh, 1990).

Several studies have shown that mothers and fathers experience different levels of stress related to their children with SLD (e.g., Chapman & Boersma, 1979; Essex, 2002; Hadadian & Merbler, 1995; Kaslow & Cooper, 1978; Kazak & Marvin, 1984). Mothers of children with SLD may experience more depression and greater levels of stress than fathers. Kaslow and Cooper (1978), for example, found that mothers of children with SLD have more depression than fathers. In a study by Floyd and Gallagher (1997), mothers of children with SLD exhibited more stress than fathers due to increased responsibility. Mothers of children with SLD also demonstrated greater levels of negative reactions to their children as opposed to fathers. According to measurements of performance expectations for academic achievement of the child with SLD, more mothers than fathers expected their children to experience failure. Further, mothers as opposed to fathers assume more responsibility for their child with SLD (Essex, 2002; Hadadian & Merbler, 1995; Wilgosh, 1990), and social stigma for the child with SLD is of greater concern to mothers than fathers (Chang & Hsu, 2007). Marital harmony is of concern for mothers of children with SLD, and they may become more anxious than fathers when considering their child's success in life (Kazak & Marvin, 1984).

Specific learning disabilities are not like some other obvious disabilities, such as blindness and deafness that parents can notice and treat early. It is a hidden disability; parents often may not be able to notice its symptoms prior to early grade school (Dyson, 1996; Faerstein, 1981). Specific learning disabilities create obvious difficulties when the child enters the later grades that emphasize writing, reading, spelling, comprehension, and math (Faerstein, 1981; Hallahan et al., 2005). Bear, Kortering, & Brazziel, (2006) stated, *students with LD demonstrate low academic achievement—a feature that generally worsens as they get older* (p.293). Having a child with SLD, because it is a hidden disability, makes it difficult for parents to understand their child's learning dysfunction (Faerstein, 1981; Hallahan et al., 2005). Thus, guilt is a common feeling that parents of children with SLD could develop because such disabilities could go undetected for so long (Hallahan et al., 2005; Faerstein, 1981). Also, specific learning disabilities may overlap or coexist with many factors that cause parents of children with SLD to have higher stress levels than parents of children without SLD. These factors include the visibility of the disability, the educational placement, difficulty in securing babysitters, and lack of support and coping interventions (Chang & McConkey, 2008; Fitzpatrick & Dowling, 2007).

There is abundant evidence that shows that having a child with learning disabilities could increase parents' stress levels (Dyson, 1996; Dyson, 2003; Floyd & Gallagher, 1997; Fuller & Rankin, 1994; Hallahan et al., 2005; Kazak & Marvin, 1984; Lardieri et al., 2000; Margalit & Heiman, 1986; Saloviita, Italinna, & Leinonen, 2003). Parents of SLD children are at increased risk for stress and other mental health problems, such as depression—more so than parents of children without disabilities (Chang & McConkey, 2008; Emerson, 2003; Hasting & Beck, 2004).

Other factors in parents' stress are also emerging as the result of the lack of external sources of support that these parents need to provide a normal life and effective educational services for their children. Limited external sources of support, for example support from friends, school, and professional organizations, can increase parents' frustration and anxiety (Arnold, Michael, Hosley & Miller, 1994; Chang & McConkey, 2008; John, 2012, Redmond & Richardson, 2003; Sajjad, 2011 Waggoner & Wilgosh, 1990). A study by Hassal, Rose, and McDonald (2005) demonstrated a negative correlation between family support and parental stress. This finding indicates that parents with high levels of support from others have lower levels of stress about their children's disabilities.

Parents show frustration and anxiety while they are trying to help their children with SLD complete homework, make decisions, and understand parents' instructions about the household chores that they have to finish (Lardieri et al., 2000). Parents attribute their stress and depression to having to work

constantly and having little time left for themselves (Olsson & Hwang, 2003). Some studies showed that parents' stress comes from confusion about how to help their children and from the lack of information that provided more details about vocational services, work training, community employment, and independent living opportunities that are suitable for their children with SLD (Brotherson, Berdine, & Sartini, 1993; Chang & McConkey, 2008; Hanline & Halvorsen, 1989). Hasting and Beck (2004) stated that *conflicting advice from a range of professionals and agencies is likely to be a source of stress for parents* (p. 1345). Redmond and Richardson (2003) reported that the difficulty of accessing services and inadequate and uncoordinated services are the greatest factors that contribute to SLD mothers' stress. The mothers in this study indicated that they need to be supported with reliable, flexible, and responsive services (Redmond & Richardson, 2003). Parents need information that facilitates the transition to integrated educational settings for their children in the future (Brotherson et al., 1993; Chang & McConkey, 2008; Hanline & Halvorsen, 1989; Wilchesky & Reynolds, 1986; Wilgosh, 1990). Minimal information about special education services may make parents with children with SLD have more stress, low expectations, and less optimism about the effectiveness of these services (Chang & McConkey, 2008; Orlowska, 1995). Russell (2003) reported that research shows that there are few support services that can meet the needs of parents of children with SLD. Thus, these needs frequently remain unmet.

The research literature also suggests that parental stress is not limited to only Western countries. Cho and Hong (2013) have reported high stress among Korean mothers of children with disabilities; they further reported a relationship between family income and mothers' stress level. Chang and Hsu (2007) and Chang and McCaskey's (2008) studies suggested that SLD parents' stress in Taiwan is caused by two factors: 1) the social stigma that their children can experience from society and 2) the lack of support services and resources that can facilitate their children's learning. SLD parents' anxiety can also come from the negative attitude that the parents have toward their children's abilities to accomplish the required academic achievement in their grades (Klein, Altman, Dreizen, Friedman, & Power, 1981). Parents' preoccupation with their children's future increases the parents' anxiety (Chang & Hsu, 2007; Tood, Shearm, Beyer, & Felce, 1993). Rojewski (1996) stated that *youth with learning disabilities are less likely to aspire to high-prestige occupations and more likely to be indecisive about future occupational alternatives* (p. 99). Also, the chronic poor academic performance of students with SLD causes significant stress for the parents (Karande & Kulkarni, 2009). On the other hand, a Waggoner and Wilgosh (1990) study showed that some educators did not have enough experience with children with SLD. The parents in this study had a negative experience with teachers who were not realizing the difficulties that children with SLD face in school (Studer & Quigney, 2005; Taub, 2006). In addition, some educators, such as teachers and counselors, have negative attitudes toward teaching and serving children with disabilities (Gaad, 2004; Tarver-Behring & Spagna, 2004; Taub, 2006).

Nevertheless, many studies also demonstrate that some parents of children with disabilities have positive views about their children (Donenberg & Baker, 1993; Haldy & Hanzlik, 1990; Hastings et al., 2002; Flaherty & Glidden, 2000; Olsson & Hwang, 2003; Redmond & Richardson, 2003; Trute, Hiebert-Murphy, Levine 2007). Having a child with a disability can be a source of happiness, fulfillment, greater coping skills, spiritual growth, and also a source of strength and family closeness (Ferguson, 2002; Hastings et al., 2002; Knox, Parmenter, Atkinson, & Yazbeck, 2000; Trute et al., 2007). Personal growth, family cohesion, sensitivity to others, and an expansion in one's social contacts are positive impacts that some parents have experienced while caring for children with special needs (Grant, Ramcharan, McGrath, Nolan, & Keady, 1998; Slainton & Besser, 1998; Scorgie, Welgosh, & McDonald, 1999; Scorgie & Sobsey, 2000). Keating (1997) reported that some parents of children with disabilities mention that these children had a positive impact on them and other members of the family. Some parents in this study demonstrated that they became less selfish, developed a more tolerant perspective, and had been taught how to love unconditionally. Also many parents had benefited from the disability of their children by increasing the family's cohesion (Grant & Whittell, 2000).

The existing literature suggests that there are few studies specifically related to stress levels of mothers of children with disability regarding a number of variables including employment and educational status. Also, there appears to be limited research on the cross-cultural aspects of parental stress-- especially regarding SLD. Therefore the purpose of this study is to examine Kuwaiti's mother's stress, as measured by a score on the Parenting Stress Index (PSI), 3<sup>rd</sup> ed. The hypothesis of this study is that there is a difference in the level of stress between employment and educational status of Kuwaitis' mothers. The assumption is that work duties outside of the home increase maternal stress level. We also hypothesize that higher education may decrease stress level due to a number of factors including an improved ability to navigate a complex system of services.

## Method

### *Participants*

The population ( $n=91$ ) for this study was a sub - sample of 91 mothers from a larger study drawn from the Center for Child Evaluation and Teaching in Kuwait. This Center is a non-profit organization that was established in 1984. It provides specialized diagnostic, remedial, and teaching services in both English and Arabic in the field of learning disabilities. This Center is the only educational institution in Kuwait that exclusively educates and serves children with specific learning disabilities from third grade until twelfth grade. The Center for Child Evaluation and Teaching has 152 students (128 boys and 24 girls).

Since the Parent Stress Index (PSI) is standardized and valid for use with parents of children up to 13 years of age, the researchers only asked the mothers who had a child in the Center in third grade through eighth grade (students around 8-13 years old) to participate in this study. Therefore, total of 91 mothers were included in this study. A total of 91 surveys (91 mothers) were included for the final analysis in this study ( $n=91$ ) and there were no missing cases among these 91 surveys.

Within the survey sample, 39.5% of the mothers were between the ages of 25-40, and 61.5% were older than 40 years. Of the mothers included in the sample, 46.1% of the mothers had at least a four-year college degree. Finally, 49.4% of the mothers did not work outside the home and 50.5% of them did work outside the home.

### *Survey Instruments*

A survey research design was selected as the best model to conduct this study. The researcher used the Parenting Stress Index (PSI; Abidin, 1995), 3<sup>rd</sup> ed. which is used with parents of children up to 13 years of age (Fuller & Rankin, 1994; Reitman, Currier, & Stickler, 2002; Whiteside-Mansell et al., 2007). Also PSI has been widely used for individuals with disabilities (more than 85 studies) as it is referenced in the PSI Manual (e.g., Beckman, 1991; Boyce, White, & Kerr, 1993; Fisman, Wolf, & Noh, 1989; Fitzgerald, Butler, & Kinsella, 1990; Fuller & Rankin, 1994; Hanson & Hanline, 1990; Krauss, Hauser-Cram, Upshur, & Shonkoff, 1989; Mott, Fewell, Lewis, Meisels, Shonkoff, & Simeonsson, 1986; Pearson & Chan, 1993; Sexton, Burrell, Thompson, & Sharpton, 1992). Use of the PSI with parents of children with disabilities has shown a relationship between child functioning and stress (Barkley, Fischer, Newby & Breen 1988; Cameron & Orr, 1989). The PSI takes approximately 30-60 minutes for the parent to complete.

The PSI is a screening and diagnostic instrument designed to identify the relative amount of stress in the parent-child system. The PSI is a 120-item scale with an optional 19-item Life Stress scale, which the researcher excluded from the questionnaire to make the questionnaire shorter for the parent to answer. Parents responded using a 5-point Likert Scale (1=strongly agree; 5=strongly disagree) with higher scores representing more stress about their children with SLD. Also, the scale includes some multiple-choice items. The 101 items in the PSI are divided into two domains, the child domain (child's behavioral characteristics) and the parent domain (parent's characteristics/parent's personality/parenting). These domains work in combination to provide a comprehensive, multidimensional measure that collectively measures parenting stress. Each domain has also sub domains that provide a breakdown of the intensity of stress in each area. This allows the researcher to investigate in which domain stress may be greater (Fuller & Rankin, 1994).

The Child Domain includes the following sub-domains (Abidin, 1995):

1. Distractibility/hyperactivity. This sub-scale is related to children that demonstrate a number of the behaviors that relate to Attention Deficit Disorder with hyperactivity. The behaviors include over-activity, restlessness, distractibility, short attention span, seeming inability to listen, and failure to finish things they start.
2. Adaptability. Adaptability is associated with the characteristics that show the child's inability to adapt to changes in the physical or social environment, makes the parenting task more difficult.
3. Reinforces parent. This sub-scale demonstrates if the child represents a source of positive reinforcement or not for the parent.
4. Demandingness. This area demonstrates the parent's stress that comes from his/her child's demands. These demands may come from different causes, such as clinging to

5. the parent, continually asking for help, or a high level of trivial problem behavior.
6. Mood. This sub domain is related to the child's dysfunction in emotional functioning.
6. Acceptability. This area demonstrates the contrast between the child's characteristics and what the parents had expected for their children. In other words, the child's attractiveness, intellect, and/or demeanor do not meet parental expectations.

On the other hand, the Parent Domain, or parent-related stress, is a scale that is reflective of the parents' functioning. Parent Domain includes the following sub-domains (Abidin, 1995):

1. Competence. This sub-scale is related to the parenting skills that are necessary for effective management of the child and their development.
2. Isolation. This area examines the support systems that the parent has in place. Lack of spousal support and external supports such as parent support groups or extended family can lead to isolation and high levels of stress.
3. Attachment. Attachment is related to the parent's ability to bond with their child and understand and interpret their child's emotional needs.
4. Health. This area looks at the health of the parent as it relates to their level of stress. A correlation has been noted between high levels of stress and frequent complaints of health issues by the parent.
5. Role restriction. A high score in role restriction indicates a parent's frustration with their perceived lack of freedom and inability to maintain their individuality.
6. Depression. Feelings of unhappiness and dissatisfaction can result in the parent experiencing depression.
7. Spouse. High scores in this sub domain would indicate a lack of support from the spouse. A breakdown in the marital relationship can result from the stress created through this lack of support.

Whiteside-Mansell et al., (2007) stated that *parenting stress is a complex construct that involves behavioral, cognitive, and affective components and is a combination of child and parent characteristics, as well as family situational components as they relate to the person's appraisal of his or her role as a parent* (p. 27). The PSI can be a helpful scale for determining the levels of parental stress because the proposed domains explain relations between parent and child outcomes and specific aspects of stress related to parenting (Whiteside-Mansell et al., 2007).

Apart from extensive validity research data reported in the PSI manual, the author of the PSI scale noted that *the PSI has been validated not only in a variety of U.S. samples, but also in trans-cultural research involving populations as diverse as Chinese* (Pearson & Chan, 1993), *Italian* (Forgays, 1992), *Portuguese* (Santos, 1992), and *Latin American Hispanic* (Solis and Abidin, 1991, p. 3). Many studies have demonstrated that the PSI is a robust diagnostic measure that preserves its validity with diverse non-English-speaking cultures. Thus, validity is likely to be maintained by the PSI with a variety of different U.S. populations (Abidin, 1995). Also, many studies have shown strong evidence of PSI content validity, concurrent and construct validities, and discriminant and factorial validities (Fuller & Rankin, 1994). Scheel and Rieckmann (1998) stated, *the PSI possesses good construct validity based on factor analysis and discrimination between groups of parents* (p. 20).

Moreover, many studies indicated that the PSI is sufficiently robust as a measure for different populations. These studies showed that there were no differences in its reliability across cultures (Abidin, 1995). In general, the author of the scale reported more than 90 measures that have correlated with the PSI that provide more confirmation for the construct and predictive validity of the PSI (1995).

#### *Data Collection Procedures*

The lead researcher requested from director of the Center for Child Evaluation and Teaching to conduct the survey study. Upon agreement of the director of the Center, the researcher mailed the cover letter and informed consent document to the parents. The cover letter included all the information regarding the lead researcher and his study such as contact information, objectives of the study, responsibilities of the participant, etc. It also confirmed that participation was voluntary and that the participant could withdraw from the study at any time. The informed consent document allowed the participants to decide whether to participate or not. They were requested to sign the informed consent document to confirm their participation. All the parents who agreed to participate in the study were invited by the lead researcher to come to the Center to fill out the study questionnaires. The lead researcher was present at that date to

distribute, collect, and make sure the study questionnaires were given only to those who had signed the informed consent document.

Data collecting procedures also ensured that no personally identifiable information would be associated with the survey questionnaire. The survey questionnaires were kept in a locked file cabinet. All materials were destroyed after they were no longer needed for analysis.

### Results

The researchers used descriptive statistics to analyze the demographical data and inferential statistics were used to answer research questions. A (2 X 2), MANOVA was conducted using SPSS to investigate the influence of mothers' education (less than four years college vs. four years college and graduate studies) and working status (working vs. not working) on mothers' stress level in the child and parental domain of PSI. Specifically, the Child domain asks questions about their children and is comprised of six subscales, namely Distractibility/Hyperactivity (DI), Adaptability (AD), Reinforces Parent (RE), Demandingness (DE), Mood (MO), Acceptability (AC). The Parental domain asks questions about the parents themselves and is comprised of seven sub-scales, namely Competence (CO), Isolation (IS), Attachment (AT), Health (HE), Role Restriction (RO), Depression (DP), Spouse (SP).

#### Data Analysis

Prior to the analysis, assumptions for MANOVA were checked. First, the assumption of homogeneity of variance was met as Box's M test was not significant ( $p = .309$  for the child domain and  $p = .247$  for the parental domain). This indicates that the covariance matrices of the group of mothers with less than four years college and the group of mothers with four years college and graduate studies are equal for both child and parental domain of PSI. Similarly, the covariance matrices of working mother group and not working mother group are equal for both child and parental domain of PSI. Second, the assumption of multivariate normality was also checked using Mardia's test in SAS. The multivariate normality was met for child domain as Henze-Zirkler T test was insignificant,  $p = .124$ . Henze-Zirkler T Test is significant for parental domain,  $p < .001$ . However, the sample size is adequate for purpose of this study. Furthermore, MANOVA is robust to the normality assumption violation when there is a fairly large sample size.

Results showed that there were no significant group differences of mothers' educational status on mothers' stress levels in the child domain,  $p = .858$ , ns; neither were there significant group differences of working status on mothers' stress levels in the child domain,  $p = .113$ , ns. However, the overall multivariate test showed that mothers' educational status had a significant influence over their stress level in the parental domain of PSI, Wilks' Lambda = .809,  $F(7, 81) = 2.732$ ,  $p = .013$ . Working status was also shown to have a significant influence over mothers' stress level in the parental domain of PSI, Wilks' Lambda = .785,  $F(7, 81) = 3.162$ ,  $p = .005$  (see Table 1).

**Table1. Multivariate Tests of the Effects of Mother Education, Working Status and the Interaction on Parental Domain of PSI**

Working	Working mother		Not working mother	
	M	SD	M	
RO	2.72	.94	2.22	
SP	2.39	.02	2.34	
HE	3.00	.90	2.53	

Note. MEdu=mother's education; Working=working status; df1=Hypothesis df; df2=Error df.

To further understand the nature of the influence of mothers' educational and working status, discriminant function analysis was conducted. The structure matrix for the variable of educational status showed the sub-scale of CO (competence) contributed most to the group differences in terms of mother stress level (see Table 2).

**Table2. Canonical Discriminant Functions Structure Matrix for the variable of Mother Education**

Subscales within Parental domain	Function
Competence (CO)	<b>.615</b>
Role Restriction (RO)	-.148
Attachment (AT)	.131
Spouse (SP)	-.089
Depression (DP)	-.083
Health (HE)	.054
Isolation (IS)	.006

Note. .4 was used as the cut-off values for important contributors.

As shown from the descriptive statistics, mothers who had 4 or more years of college had lower stress level than mothers who had less than 4 years college in the CO sub-domain (see Table 3).

**Table 3. Descriptive Statistics on Mothers' Stress for the CO Sub-Domain for the Variable of Mother Education**

MEdu	less than 4 years college		4 years college and graduate studies
	M	SD	M
CO	2.52	.53	2.21

Note. MEdu=Mother's education; CO=Competence.

The structure matrix for the variable of working status indicated that the subscales of RO (role restriction) contributed most to the group differences in terms of mother stress level, followed by SP (spouse) as the second most important contributor and HE (health) as the third most important contributor (see table 4).

**Table 4. Canonical Discriminant Functions Structure Matrix for the variable of Working Status**

Subscales within Parental domain	Function
Role Restriction (RO)	<b>.608</b>
Spouse (SP)	<b>.581</b>
Health (HE)	<b>.536</b>
Depression (DP)	.258
Competence (CO)	.243
Isolation (IS)	.117
Attachment (AT)	.078

Note. .4 was used as the cut-off values for important contributors.

As shown from the descriptive statistics, mothers who work have higher stress level than mothers who do not work in the RO, SP and HE sub—domains (see Table 5).

**Table 5. Descriptive Statistics on Mothers' Stress for RO, SP and HE Sub-Domains for the Variable of Working Status**

Working	Working mother		Not working mother
	M	SD	M
RO	2.72	.94	2.22
SP	2.39	.02	2.34
HE	3.00	.90	2.53

Note. Working=Working status; RO=Role Restriction; SP=Spouse; HE=Health.

Finally, the interaction effect of mother education and working status were examined. As shown in Table 1, there was no interaction effect between mother education and working status,  $p=.809$ , ns, indicating

that the pattern of the effect of mother education on mothers' stress level is the same across working status.

#### *Limitations of the Research Study*

The study was limited by a number of variables including the sample size and selection, location, and the survey instrument that required further discussion. First, this study was conducted solely in the only institution in Kuwait that is serving SLD students. The Center for Child Evaluation and Teaching is located in one city in Kuwait and there are no other branches of the Center in other cities in Kuwait. Therefore, the sample in this study may not represent the broader group of mothers of SLD children. Second, the sample was voluntary; consequently, there were approximately 60 parents who chose not to participate in this study. Third, the study was only conducted in Kuwait and it only targeted Kuwaiti's mothers. Therefore, the sample in this study did not include mothers from other countries in the Gulf Area or from the Middle East. Although Kuwait and other Gulf countries have the same culture and religion, the education services and resources that these countries provide for their citizens vary. Thus, the results from this study may only be applicable to Kuwaiti parents of children with SLD. Replication of this study in different Middle East countries may increase the generalizability of the study. Fourth, this study focused only on parents of children with SLD. The representation of this study may not be applicable to parents of children with different disabilities. Therefore, replications and/or focusing on other disabilities may increase the representative validity of this study. Finally, The Parent Stress Index (PSI), which is a standardized test, was the major questionnaire for this study. Although the lead researcher followed a professional procedure in order to guarantee an accurate translation of the PSI, nevertheless is not normed on Kuwaiti's mothers and was translated from English to Arabic.

#### *Implications for Future Research*

In order to support many of the implications of this study that motivate stakeholders to establish effective programs for supporting mothers of children with disabilities, researchers, especially in the Gulf Area and the Middle East, need to conduct studies that compare the stress levels between mothers of children with disabilities and parents of non-disabled children. Also, replication of this study with a larger sample as well as other disabilities in Kuwait, the Gulf Area, and the Middle East may confirm and increase the generalizability of this study and promote the study's findings, which may enhance the services for children with disabilities and their families.

Researchers may need to investigate other variables that may play a significant role in parental stress levels. Researchers may investigate variables such as the severity of the disability, child's age, parents' age, parents' education status, parents' income, the number of children, or mother's work outside the home. Innocenti, Huh, & Boyce (1992) reported that *stress is not an easy concept to assess because it involves both the occurrence of events and the individuals' perception of these events* (p. 424). Also, the lead author had excluded 19 items related to specific life stressors such as divorce, death in the family, legal problems, and pregnancy in order to make the questionnaire shorter and to encourage the participants to complete it. Thus, replication of this study adding these 19 items may provide a bigger picture of parental stress and clarify some variables that affect this important emotion.

Moreover, since this study was predominantly quantitative, there was little time to elaborate on the issues cited by the mothers in the qualitative part of the survey study. For future research, the mothers indicated a need to discuss the issues further through a more in-depth qualitative study, such as individual interviews, to better understand the existing and emerging issues. Therefore, a replication of this study using a qualitative approach or a mixed method will be essential for further exploration of the issues cited by mothers.

#### **Conclusion**

Consistent with many research studies that found differences in stress levels between parents of children with disabilities; this study showed that there were significant differences in stress levels between Kuwaiti's working and non-working mothers about their children with SLD. The present study revealed that Kuwaiti's working mothers had significantly higher stress levels.

Given the available research literature and the results of this study, it is essential and urgent that stakeholders, especially in Kuwait and the Gulf countries, start to establish effective programs that meet the needs of mothers of children with disabilities. These mothers need effective support that enhances parents' efforts regarding their children with disabilities and that improves the quality of life for both parents and their children. In addition, the differences in stress levels based on educational attainment



suggest the importance of parent training. It is recommended that stakeholders facilitate further education of mothers of children with SLD whenever possible. Also, replication of this study in the same area of disability (learning disabilities) and other disabilities in Kuwait, the Gulf Area, and the Middle East may confirm and increase the generalizability of this study and promote the study's implications, which may enhance the services for children with disabilities and their families.

The findings of this study reaffirm the existence of high stress for mothers of children with disabilities. However, the level of stress is affected by at least some potentially controllable factors. First, not working appears to help mitigate some maternal stress. Also, while increasing the formal educational level of parents may not be feasible, providing at least some training on how to locate and use appropriate services could help reduce overall stress. Finally, it can be concluded that parental stress induced by having a child with a disability is indeed a cross-cultural occurrence.

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